U.S. Environmental Protection Agency
Science Advisory Board
Committee: Advisory Council on Clean Air Compliance Analysis (Council)
Special Council Panel for the Review of the Third 812 Analysis
Summary Minutes of Public Teleconference
Date: October 23, 2003

Committee Members: (See Roster - Attachment A)
Date and Time: 11 am to 12:30 pm, October 23, 2003 (See Federal Register Notice - Attachment B.)
Location: By teleconference only
Purpose: The purpose of the call was to provide the Special Council Panel with the opportunity to is planned to prepare the Council for its public meeting on November 5-6 and to discuss the Council Special Panel draft report ``Interim Installment: Review of the Revised Analytical Plan for EPA's Second Prospective Analysis."

Attendees: Chair: Dr. Trudy Cameron; Ms. Laurie Chestnut, Drs. James Hammitt, Dale Hattis, Lester Lave, Virginia McConnell, Bart Ostro, Kerry Smith.

Other Persons Attending: From EPA: James DeMocker, Lisa Conner, Eric Ginsburg, Brian Heninger, Peter Nagelhout, Nathalie Simon, Trish Koman. EPA Contractors: Leland Deck, Abt Associates; Jim Neumann, IEc; Henry Roman, IEc.

Meeting Summary:

The meeting followed the issues and timing as presented in the meeting Agenda (see Meeting Agenda - Attachment C). The teleconference lasted until 12:30 pm. There were no written public comments submitted to the Committee, and there was no written public request to present public comments during the discussion.

Welcome and Introductions Dr. Angela Nugent, Designated Federal Official (DFO) opened the session at 11 a.m. and took roll. - Dr. Trudy Cameron, the Chair, reviewed the agenda (Attachment C).

Comments from the Agency

Mr. Jim DeMocker summarized three "minor points" regarding Council documents circulated for the meeting. He noted that the IPM model had the capability to disaggregate costs on a regional basis. Both IPM and HAIKU treat pricing and cost capacity as least cost. He then noted that the Omega model had capability for price elasticity for goods and services relevant to households. He then clarified the history of the Agency's use of 5% as one of the discount rates used in the 812 Analysis. He noted that OMB guidelines don't mention 5%, and instead refer to a range. The Agency has chosen historically to use 5% for the 812 analyses as a compromise between EPA's 3% mentioned in the economic guidelines and the OMB's 7% rate from the 1992 discount rate circular; there also exist some empirical data justifying the 5% rate.

He then noted a concern that the Agency's discussion in Chapter 10 of uncertainty analysis and data validation was resulting in Council draft advice that may call for a level of study performance that may not be attainable within the context of this broad 812 application. The plan proposed plausibility checks on topics and areas that the Agency thinks are most valuable. It also advanced an ancillary goal of making data available for researchers. He expressed concern that the Council's draft advice includes recommendations for data validation and stakeholder involvement in ways that might be impracticable for the 812 analysis. He noted that Page 2 of the draft advisory suggested that EPA conduct publication of intermediate data in ways that supports data validation, and he wondered what the term "data validation" meant in that context. It has a very technical, formal meaning within the EPA context. Formal validation of every state of the analysis would make process even more lengthy. EPA would use only sets of data that have already gone through data checking and vetting. He also noted that section 812 of the Clean Air Act Amendments did not call for public involvement and called for a short "turn around" in producing successive analyses. Mr. DeMocker asked if the Council would consider providing advice related to data validation into three different kinds of study conditions: (i.) practices establishing basic competence for credible study; (ii.) elements that, if currently tractable, would allow attainment of best practices/state-of-the-art; and (iii.) areas where the Agency should look beyond currently available best practice to anticipate what may become best practice in the future. He provided this information in written form to the DFO after the meeting

In response to questions from members, Mr. DeMocker explained that the Agency's purpose in providing data is to meet requests from researchers. Several members discussed the importance of model validation in giving confidence to the results. Mr. DeMocker stated that the Agency will have a process for testing data, but he did not want to create a process for making data available that will be unmanageable or raise unmanageable expectations.

Dr. Cameron spoke of the utility of using a term other than data validation, because that term had a formal meaning within the Agency. One members suggested using the juxtaposition of data and expectations. The Committee generally accepted the suggestion of linking advice to the 3 different kinds of study conditions described by Mr. DeMocker.

Discussion of Additions and Changes to Draft "Interim Review of the Revised Analytical Plan for EPA's Second Prospective Analysis - Benefits and Costs of the Clean Air Act"

The Panel then turned to comments on the draft Council Special Panel document provided to them for review and comment. One member noted that it was important in section 6.7 to discuss *relative* prices of gas and other fuels, rather than specifically the future of natural gas prices alone. In Section 6.8., distinctions might be made between health-health analysis and risk trade-offs. The Council Special Panel agreed that the richer-is-safer analysis should be mentioned in the advisory but not recommended as a part of the 812 analysis

Another panel member noted that chapter 10, page 5 under itemized limits to data review would drop most of item "D" . While it is reasonable to expect new mortality due to air pollution, it is impossible for practitioners to know which mortality cases are due to air pollution, given the relatively low effects air pollution has on health outcomes. The advisory should instead instruct the Agency to report upon available natural experiments, the benefits estimates that result, and note where these benefits appear to be larger than what ordinary time series analyses tend to show.

The Chair of the Council's Health Effects Subcommittee (HES) noted that Page 10 indicates that "there should be more attention" to lung disease in the Analysis. He asked that this language be dropped and said "having looked at dose-response information, EPA is using everything that is out there, cannot do more."

Another member suggested that the chapter 3 section on air toxics be deferred until HES report is submitted; and the Section 3.4 discussion of non-mortality health effects be deferred defer until after the November 5-6 meeting. The same member suggested adding a discussion of visibility valuation to the November discussion. She asked whether the mention in Chapter 4.2. of benchmarking and emissions was consistent and/or redundant with the discussions of the AQMS. She suggested that the Council check that and perhaps leave that discussion out of the Interim Installment report.

Section 4.5 raises issues concerning the timeline profile that are clarifications. The paragraph might be shortened to raise important point to highlight for policy makers

The Council Special Panel agreed to defer the discussion of alternative pathways and discounting until after the November 5-6 meeting. The Council Special Panel noted that there were several issues regarding discounting. One concerned the rate to be used; another concerned the extent to which same rate is being used in different parts of the analysis.

The Council asked for information on the AMIGA model needs to be clarified. Mr. Jim Neumann, contractor to the EPA will provide that information.

The Council then noted some confusions in key terminology used in the draft interim report. The report is not consistent in its use of terms and terminology used in the non-road diesel analysis, and this inconsistency complicates the discussion. Mr. DeMocker explained that historically, the 812 analyses had used the following terms: (1) a central analysis that was primary (and provided primary central, low and high estimates); and (2) alternative estimates that indicate how the primary central case would change if changes are made one at a time (e.g., a sensitivity analysis). He noted that in the non-road diesel rule, a decision was made to characterize 812 assumptions as the "base estimate." Then an "alternative estimate" was used that was reflection of several alternative assumptions imposed simultaneously. Several Council members noted that all assumptions used in the "alternative estimate" were based on conservative estimates, lowering the resulting "alternative estimate."

Members of the Council Special Panel advised that Sections 3.3 through 3.4 need to be deferred until after the November meeting.

One Member asked about the Agency's plan to use net present value estimates and the reference to them on page 14 . Dr.Cameron suggested that Dr. McGartland address this issue in his discussion of discount rates at the November 5-6 meeting.

Discussion of Draft Agenda for November 5-6 Meeting Including Identification of Topics for Additional Agency Briefings at the Meeting

The Council Special Panel asked the DFO to schedule in a working lunch both days. Members asked that key briefings (e.g., on the Alternative pathway approach, discounting) happen early on the first day.

Panel Members' Responsibilities in Preparing for the Meeting

The Chair requested lead and alternate reviewers to provide written information prior to the meeting; all panel members are invited to provide written input on all charge questions Dr. Nugent asked that draft input for the meeting be received by COB November 3rd.

Members requested that the SAB Staff Office provide them with information as soon as possible to meet their travel needs.

The Chair concluded the meeting by thanking members for their participation. The teleconference was adjourned at 12:30 pm.

Summary of Action Items

1. DFO to revise agenda to reflect Special Panel Discussion of needs regarding that face-to-face meeting
2. Mr. Jim DeMocker to provide the Council with a written note defining the key terms for the major types of estimates used
3. Mr. Jim Neumann to provide the Council with additional information on the AMIGA CGE model
4. Lead and Alternate Discussants members to provide written input relevant to their charge questions by COB November 3rd by email to the DFO.

Respectfully Submitted:

Angela Nugent,
Designated Federal Official

Certified as True:

Trudy Cameron
Chair

NOTE AND DISCLAIMER: The minutes of this public meeting reflect diverse ideas and suggestions offered by the Council members and consultants to the Agency during the course of deliberations within the meeting. Such ideas, suggestions and deliberations do not necessarily reflect definitive consensus advice from the Council. The reader is cautioned to not rely on the minutes to represent final, approved, consensus advice and recommendations offered to the Agency. Such advice and recommendations may be found in the final reports prepared and transmitted to the EPA Administrator following the public meetings.

ATTACHMENTS

Attachment A Roster of the Special Council Panel

Attachment B Federal Register Notice

Attachment C Meeting Agenda

Attachment D Comments from Mr. James DeMocker, DeMocker comments regarding the Council's aggregated comments on the "Initial Interim Installment."

Attachment E MEMORANDUM, TO: Council Special Panel, FROM: Trudy Ann Cameron, DATE: September 22, 2003, RE: Aggregated Comments on the September 5, 2003 draft: "Interim Installment: Review of the Revised Analytical Plan for EPA's Second Prospective Analysis – Benefits and Costs of the Clean Air Act 1990-2020"

Attachment F Attachment F, DeMocker October 23, 2003 Notes on Council Interim Advisory: Chapter 10

Attachment A - Roster

U.S. Environmental Protection Agency
Science Advisory Board
Advisory Council on Clean Air Compliance Analysis
Special Council Panel for the Review of the Third 812 Analysis*

CHAIR

Dr. Trudy Cameron, Raymond F. Mikesell Professor of Environmental and Resource Economics, Department of Economics, University of Oregon, Eugene, OR
Also Member: Executive Committee

MEMBERS

Dr. David T. Allen, The Henry Beckman Professor in Chemical Engineering, Department of Chemical Engineering, University of Texas , Austin, TX

Ms. Lauraine Chestnut, Manager, Stratus Consulting Inc, Boulder , CO

Dr. Lawrence Goulder, Associate Professor, Department of Economics & Institute for International Studies, Stanford University, Stanford, CA
Also Member: Environmental Economics Advisory Committee

Dr. James Hammitt, Professor of Economics and Decision Sciences, Department of Health Policy and Management, School of Public Health, Harvard University, Boston, MA

Dr. F. Reed Johnson, Principal Economist and RTI Fellow, RTI Health Solutions, Research Triangle Institute, Research Triangle Park, NC

Dr. Charles Kolstad, Professor, Department of Economics, Bren School of Environmental Science and Management, University of California, Santa Barbara, CA

Dr. Lester B. Lave, Professor, Graduate School of Industrial Administration, Carnegie Mellon University, Pittsburgh, PA

Dr. Virginia McConnell, Senior Fellow; Professor of Economics, Resources for the Future, Washington, DC

Dr. Bart Ostro, Chief, Air Pollution Epidemiology Unit, California Office of Environmental Health Hazard Assessment (OEHHA), Oakland, CA

Dr. V. Kerry Smith, University Distinguished Professor, Department of Agricultural and Resource Economics, College of Agriculture and Life Sciences, North Carolina State University, Raleigh, NC

OTHER SAB MEMBERS

Dr. Dale Hattis, Research Professor, Center for Technology, Environment, and Development, Marsh Institute, Clark University, Worcester, MA
Member: Environmental Health Committee

CONSULTANTS

Dr. John Evans, Senior Lecturer on Environmental Science, Harvard University, Portsmouth, NH

Dr. D. Warner North, President, North Works Inc, Belmont, CA

Dr. Thomas S Wallsten, Professor, Department of Psychology , University of Maryland, College Park, MD

SCIENCE ADVISORY BOARD STAFF

Dr. Angela Nugent, Designated Federal Officer, 1200 Pennsylvania Avenue, NW, Washington, DC, Phone: 202-564-4562, Fax: 202-501-0323, (nugent.angela@epa.gov)

* Members of this SAB Panel consist of
a. SAB Members: Experts appointed by the Administrator to serve on one of the SAB Standing Committees.
b. SAB Consultants: Experts appointed by the SAB Staff Director to a one-year term to serve on ad hoc Panels formed to address a particular issue.

Attachment B - Federal Register Notice

Science Advisory Board Staff Office; Advisory Council on Clean Air Compliance Analysis; Notification of Upcoming Public Teleconferences for Its Subcommittees and Special Panel and a Public Meeting for Its Special Panel and Air Quality Modeling Subcommittee

[Federal Register: October 7, 2003 (Volume 68, Number 194)]
[Notices]
[Page 57890-57891]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr07oc03-51]

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ENVIRONMENTAL PROTECTION AGENCY

[FRL-7569-5]

Science Advisory Board Staff Office; Advisory Council on Clean Air Compliance Analysis; Notification of Upcoming Public Teleconferences for Its Subcommittees and Special Panel and a Public Meeting for Its Special Panel and Air Quality Modeling Subcommittee

AGENCY: Environmental Protection Agency (EPA).
ACTION: Notice.

SUMMARY: The EPA Science Advisory Board Staff Office is announcing a public meeting and a public teleconference of the Advisory Council on Clean Air Compliance Analysis Special Council Panel for the Review of the Third 812 Analysis (Council Special Panel). It is also announcing a public meeting and a public teleconference of the Council's Air Quality Modeling Subcommittee and a public teleconference for the Council's Health Effects Subcommittee.

DATES: October 15, 2003. A public teleconference for the Health Effects Subcommittee (HES) will be held from 11 a.m. to 12:30 p.m. (Eastern Time).

October 23, 2003. A public teleconference call meeting for the Council Special Panel will be held from 11 a.m. to 12:30 p.m. (Eastern Time).

October 24, 2003. A public teleconference call meeting for the Air Quality Modeling Subcommittee (AQMS) will be held from 11 a.m. to 12:30 p.m. (Eastern Time).

November 5-6, 2003. A public meeting for the Council Special Panel will be held from 8:30 a.m. to 6 p.m. November 5, 2003 and from 8:30 a.m.to 5 p.m on November 6, 2003 (Eastern Time).

November 7, 2003. A public meeting for the AQMS will be held from 8:30 a.m. to 5 p.m on November 7, 2003 (Eastern Time).

ADDRESSES: The meeting location for the November 5-6, 2003 meeting of the Council Special Panel and for the November 6-7, 2003 meeting of the AQMS will be in Washington, DC. The meeting location will be announced on the SAB website, http://www.epa.gov/sab in advance of the meeting. Participation in the teleconference meetings will be by teleconference only.

FOR FURTHER INFORMATION CONTACT: Members of the public who wish to obtain the call-in number and access code to participate in the teleconference meeting may contact Ms. Sandra

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Friedman, EPA Science Advisory Board Staff Office, at telephone/voice mail: (202) 564-2526; or via e-mail at: friedman.sandra@epa.gov, or Ms. Delores Darden, EPA Science Advisory Board Staff Office at telephone/ voice mail: (202) 564-2282; or via e-mail at darden.delores@epa.gov. Any member of the public wishing further information regarding the Council Special Panel or the Council's Subcommittees may contact Dr. Angela Nugent, Designated Federal Officer (DFO), U.S. EPA Science Advisory Board (1400A), 1200 Pennsylvania Avenue NW., Washington, DC 20460; by telephone/voice mail at (202) 564-4562; or via e-mail at nugent.angela@epa.gov. General information about the SAB can be found in the SAB web site at http://www.epa.gov/sab.

SUPPLEMENTARY INFORMATION:

Background

Pursuant to the Federal Advisory Committee Act, Public Law 92-463, Notice is given that the Council Special Panel and the AQMS will each hold a public meeting and the HES will hold a public teleconference call, as described above, to advise the Agency on its plan to develop the third in a series of statutorily mandated comprehensive analyses of the total costs and benefits of programs implemented pursuant to the Clean Air Act.

Background on the Council Special Panel, the AQMS, and this advisory project was provided in a Federal Register notice published on February 14, 2003 (68 FR 7531-7534).

The Council Special Panel and the Council subcommittees will be providing advice on the review document, ``Benefits and Costs of the Clean Air Act 1990-2020; Revised Analytical Plan for EPA's Second Prospective Analysis'' currently found at the following website, maintained by EPA's Office of Air and Radiation at: http://www.epa.gov/ oar/sect812/ under the link ``Study Blueprint and Charge Questions Electronic Copy.'' This link provides electronic access to the Revised Analytical Plan, the ``change pages'' given to the Council in July 2003, and the detailed review charge questions.

The public meeting for the Council Special Panel, described above is planned for the Council to provide advice to the Agency on remaining charge questions related to its review of the Revised Analytical Plan for EPA's Second Prospective Analysis. These charge questions include the Agency's plans for valuation and its plans for addressing uncertainties associated with the analysis.

The public teleconference for the Council Special Panel is planned to prepare the Council for its public meeting and to discuss the Council Special Panel draft report ``Interim Installment: Review of the

Revised Analytical Plan for EPA's Second Prospective Analysis" posted on the SAB website as a draft report (consult the following page: http://www.epa.gov/science1/drrep.htm).

The purpose of the public meeting for the AQMS is for the AQMS to provide advice on the Agency's plans for air quality modeling.

The public teleconference for the AQMS, also described above, is planned to prepare the AQMS for its public meeting, which will focus on the Agency's plans for air quality modeling.

The purpose of the public teleconference for the HES is to discuss a draft report entitled ``Advisory on Plans for Health Effects Analysis in the Analytical Plan for EPA's Second Prospective Analysis--Benefits and Costs of the Clean Air Act, 1990-2020," developed during the HES public meeting on August 28-28, 2003. That meeting was previously announced in the Federal Register on July 30, 2003 (68 FR 44766-44767). The HES draft report will be posted on the SAB website (on the special page for Draft Reports at http://www.epa.gov/science1/drrep.htm) in advance of the meeting.

Agendas for the public meetings and teleconferences will be posted on the SAB website ten days before the dates of those events.

Procedures for Providing Public Comment

It is the policy of the EPA Science Advisory Board (SAB) Staff Office to accept written public comments of any length, and to accommodate oral public comments whenever possible. The EPA SAB Staff Office expects that public statements presented at its meetings will not be repetitive of previously submitted oral or written statements. Oral Comments: In general, each individual or group requesting an oral presentation at a face-to-face meeting will be limited to a total time of ten minutes (unless otherwise indicated). For conference call meetings, opportunities for oral comment will usually be limited to no more than three minutes per speaker and no more than fifteen minutes total. Interested parties should contact the Designated Federal Official (DFO) identified above at least one week prior to the meeting in order to be placed on the public speaker list for the meeting. Speakers should bring at least 35 copies of their comments and presentation slides for distribution to the participants and public at the meeting. Written Comments: Although written comments are accepted until the date of the meeting (unless otherwise stated), written comments should be received in the SAB Staff Office at least one week prior to the meeting date so that the comments may be made available to the committee for their consideration. Comments should be supplied to the DFO at the address/contact information noted above in the following formats: one hard copy with original signature, and one electronic copy via e-mail (acceptable file format: Adobe Acrobat, WordPerfect, Word, or Rich Text files (in IBM-PC/Windows 95/98 format). Those providing

written comments and who attend the meeting are also asked to bring 35 copies of their comments for public distribution.

Meeting Accommodations: Individuals requiring special accommodation to access these meetings, should contact Dr. Nugent at least five business days prior to the meeting so that appropriate arrangements can be made.

Dated: September 30, 2003.
Vanessa T. Vu,
Director, EPA Science Advisory Board Staff Office.
[FR Doc. 03-25404 Filed 10-6-03; 8:45 am]
BILLING CODE 6560-50-P

Attachment C - Agenda

U.S. EPA Science Advisory Board (SAB)
Advisory Council on Clean Air Compliance Analysis
Special Council Panel for the Review of the Third 812 Analysis
Public Teleconference
October 23, 2003, 11:00-12:30 Eastern Time

Purpose: (1) To Plan for the Council Special Panel Meeting November 5-6, 2003; (2) To Discuss Additions and Changes to Draft "Interim Review of the Revised Analytical Plan for EPA's Second Prospective Analysis - Benefits and Costs of the Clean Air Act"

Draft Agenda

11:00-11:05	Opening of Teleconference	Dr. Angela Nugent, Designated Federal Officer, SAB Staff
11:05-11:10	Review of Meeting Purpose and Agenda	Dr. Trudy Cameron, Chair
11:10-11:20	Public Comment	To Be Identified
11:20-12:00	Discussion of Additions and Changes to Draft "Interim Review of the Revised Analytical Plan for EPA's Second Prospective Analysis - Benefits and Costs of the Clean Air Act"	Panel
12:00-12:20	Discussion of Draft Agenda for November 5-6 Meeting Including Identification of Topics for Additional Agency Briefings at the Meeting	Panel
12:20-12:25	Panel Members' Responsibilities in Preparing for the Meeting	Dr. Trudy Cameron, Chair
12:25-12:30	Summary of Action Items	Dr. Trudy Cameron
12:30	Adjourn	

Attachment D
Comments from Mr. James DeMocker

DeMocker comments regarding the Council's aggregated comments on the "Initial Interim Installment."

(1) On page 3, Trudy adds a response to comments note which says "[TAC: I believe I heard that we should conform to the 3%, 5%, 7% sensitivity assessment recommended by the Agency's Guidelines for Economic Analysis.]"

The current EPA Economic Guidelines section on discounting, however, calls only for using 3 and 7 percent rates and does not mention 5. (This is actually the source of my concern about potential confusion re our primary analysis since EPA/NCEE seems now to be interpreting the EPA Economic Guidelines as requiring somewhat equal presentation of results reflecting 3% and 7% discount rates.)

But while the EPA Guidelines do not call for use of a 5% rate, Trudy is correct that other rates or approaches are allowed as long as their use is explained and justified. One option I'm considering is to use 5% for the primary analysis based on (a) precedent established in both prior 812 studies, which used 5% for the primary analysis and also provided sensitivity tests using 3% and 7%, and (b) empirical data I commissioned a year or so ago which point toward a rate of 5% as a better match for the OCC than OMB's 1992 vintage rate of 7% (I plan to commission an update of these empirical data). It's not that I endorse OMB's preference for basing the discount rate on the OCC (I don't), but at the very least 5% splits the difference (again) between the two agencies. If I pursue this option, I would plan once again to also provide sensitivity results based on 3 and 7 percent.

(2) On page 11, new text for the advisory report is proposed: "Fourth pgph: 'The Draft Analytical Plan states that the IPM will be used for utility cost estimates. This model is very good in many ways, but there are a few concerns.' Add: One issue is that use of the national-level IPM implies no regional breakdown in costs or in local utility regulations. For example,. [TAC: done.]"

I have arranged for the Agency's foremost experts and users of IPM --the Clean Air Markets Division of OAR's Office of Atmospheric Programs-- to review this section of the draft Council advisory and I will convey their comments once I have them. However, my own understanding of IPM is that its large number of separate supply and demand regions and its state-level and plant-level processing modules do in fact permit the kind of regional breakdown in incidence of compliance cost which the Council's draft comment appears to deny. My summary view was confirmed this afternoon by Sarah Dunham, the Branch Chief who oversees CAMD's utility sector work.

Attachment E

MEMORANDUM

TO: Council Special Panel
FROM: Trudy Ann Cameron
DATE: September 22, 2003
RE: Aggregated Comments on the September 5, 2003 draft: "Interim Installment: Review of the Revised Analytical Plan for EPA's Second Prospective Analysis – Benefits and Costs of the Clean Air Act 1990-2020"

This memo collects the various comments on this draft (received so far) and organizes them by section in the report. It is intended to serve as an aid to discussion in our September 23, 2003 teleconference concerning these and other suggestions for edits.

Not all Council members have submitted written comments or returned the draft with redline/strikeout recommendations. Additional substantive revisions and editorial suggestions will be discussed in the teleconference.

Minor wording changes and corrections deemed unlikely to be controversial are not itemized here.

1 EXECUTIVE SUMMARY

Project Goals and Analytical Sequence.

Bullet 1 (disaggregation) (Laurie Chestnut)
Add:. "Plans to disaggregate benefits and costs by sector are a very good start."

Bullet 3 (human mortality..) (Reed Johnson):
Add: Mortality risk-reduction estimates may dominate because they may not be measured correctly. If benefits consist of life extensions at the end of life with compromised function. WTP may be lower than is often estimated in wage and CV studies.

(Laurie Chestnut) Change bullet 3 to:

- **Human health risk reductions may be the most substantial benefit from the CAAA, but they are not the only important benefit. Benefits to ecosystems and other welfare benefits such as visibility are likely to be substantial and are still receiving limited attention. The Council recognizes substantial challenges in quantitative assessment of these benefits and will discuss these more in the next advisory.**

Bullet 4 (uncertainty) (Laurie Chestnut)
Add: Sensitivity/uncertainty analysis needs to be an iterative process to identify and assess the significance of key uncertainties in each step of the assessment. Only a selected set of the most influential uncertainties should be quantitatively followed all the way through to the final results

Alternative Pathways.

page 10, lines 1-18: (Laurie Chestnut).Regarding alternative pathways, let's discuss this and see if we can streamline the recommendations. Right now the recommendations range from don't bother with this, to do this differently. I think that all the disaggregation and marginal cost/benefit analyses should be prioritized according to policy relevance, which I think puts this alternative pathways analysis, as described in the plan, very low on the list.

(Warner North) . [I have a problem with this recommendation. See my comments in main text, Section 5.4]

Cost Estimates.

page 10, lines 42-45, and page 11, lines 1-2. (Laurie Chestnut)Regarding the bullet on health consequences from effects of higher prices and lower incomes, seems like this is a conversation within the Council. EPA has not raised this. We need to discuss this issue and then decide how to handle it in the advisory report.

Discounting.

page 11, lines 34-40: (Laurie Chestnut)I don't think we need a tutorial on social discount rate...this has been hashed many times. Problem is not conceptual, but empirical. We need to focus on the practical issues for the analysis, which are in the next 3 bullets. Also, it seems like the first discussion emphasizes context specific discount rates and that last says the selected rate should be consistent throughout the analysis. I think we should discuss this to clarify where we think the rates need to be consistent and where they might reasonably differ. Also, I agree that it would be more consistent with the approach for most other aspects of the analysis to choose a "best" discount rate (probably 3%, 4% or 5%?) rather than calculate everything twice with two different rates. We should talk about this more and see if there is agreement.

(Warner North) Bullet point 3: . [I recommend AGAINST a probabilistic analysis on the discount rate. I believe EPA should do a sensitivity analysis using an appropriate range of discount rates. In my opinion, the question of which discount rate to use is a value judgment about the social time preference, and I think including the discount rate as an uncertainty in a probabilistic analysis will add more confusion than insight. I eel the same way about VSL – this is a value judgment. Sensitivity analysis should be used to explore how benefit assessment depends on the quantitative value used, rather than treating VSL as an uncertainty to be described by a probability distribution.]

3 PROJECT GOALS AND ANALYTICAL SEQUENCE

Section 3.2 Disaggregation,
First paragraph (Laurie Chestnut) Text Change: The Council applauds the Agency's willingness to disaggregate, something that the Council has recommended for some time. The disaggregation to the level of individual sectors, as proposed in the plan, is an important step, but the Council would like to see the Agency plan to extent the disaggregation in future analyses. Policy relevance should determine the priorities for disaggregation efforts. The next steps beyond sectoral disaggregation might be major groups of regulations, individual Titles, and/or region-by-region disaggregation.

(notes) page 15, lines 21-27 (section 3.2). (Laurie Chestnut) I think it is unrealistic to recommend a regulation by regulation disaggregation for the 812 study. I think the intent of the analysis is to provide a big picture regarding the CAA, not analyze individual regulations. Perhaps major groups of regulations or Titles would be a useful approach for further disaggregation. Policy relevance should guide these choices—what are the CAA related issues anticipated on the horizon?

second paragraph (Reed Johnson) The Council also warns that the benefits and/or the costs associated with different sectors, regulations, or regions may not be additively separable because of nonlinearity or interaction effects among the disaggregated entities. In addition, general-equilibrium adjustments may shift incidence among sectors and

regions. These complications make the process of disaggregating benefits and costs more difficult. However, decision makers often are interested in sectoral and regional effects. Providing disaggregated estimates wherever possible will increase the usefulness of the analysis in policy making.

Section 3.3 Air Toxics, MACT requirements. (Laurie Chestnut)
Delete: "Agency delays in formulating strategies for the analysis of regulations on hazardous air pollutants (HAPs) have been ongoing."

Section 3.4 Non-health benefits (Reed Johnson) Add somewhere: Mortality risk-reduction estimates may dominate if they are not measured correctly. WTP may be lower than is often estimated in wage and CV studies if some mortality benefits consist of life extensions at the end of life with compromised function. (also suggested for Executive Summary bullet point)

Section 3.4 Non-health benefits (Laurie Chestnut) delete this entire section, holding off until later discussions.

p.17, line 33 – Visibility (Kerry Smith) It is possible, independent of the Meron et al. paper, to consider evaluating the CV studies for residential visibility. To my knowledge, no careful review has been conducted to evaluate whether observed variations in estimates were due to design features, local conditions, or other factors.

The recreational visibility studies are also old, dating to 1990. EPRI is sponsoring a study conducted by Dr. Anne Smith of Charles Rover Associates. Perhaps some contact should be made to determine the status of this work.

p 17, lines 37-39 (Ginny McConnell) "As much as any other category, visibility benefits have figured large in empirical air quality benefits estimates from hedonic property value models. They should definitely be on the "inside" of the model." (I am not clear what this last sentence means. I think we need to be more explicit here on how visibility benefits evidence from hedonic property value studies could be used. Would they be used for regional benefit estimates; applied in some national average estimate?)

(Ginny McConnell) "Morbidity effects are discussed in the Health chapter, but are not sufficiently pervasive throughout the rest of the Blueprint." (Can we give a for example here? A bit more specifics would help).

Section 3.5 Uncertainty, first paragraph (Ginny McConnell) "Informed judgments need to be made about what might be the key sources of uncertainty, and the potential consequences of this uncertainty, in each step of the assessment." [Do we want chapter 1 to say more about how the major sources of uncertainty are identified? i.e. those that are highly uncertain and have a significant impact on the results (as said below).]

Section 3.5 Uncertainty Bullet (Ginny McConnell) Alternative wording:
Chapter 1 of the 812 study should address the pervasiveness of uncertainty in cost and benefit estimates, but then identify the methods EPA will use to identify the

most important areas of uncertainty. Those elements that are both highly uncertain and a significant impact on the results should be the focus of sensitivity analyses.

4 SCENARIO DEVELOPMENT

Section 4.2. Last paragraph before bullet (Ginny McConnell)
"In all of the different scenarios, the Analytical Plan should emphasize sensitivity analysis, including variance of the baseline assumptions concerning overall macroeconomic growth. The current analytical strategy assumes proportionality in the composition of growth. The nature of the baseline growth scenario is a separate issue from the nature of the growth scenario with the CAAA in place." [This paragraph seems to be out of place. The three sentences each seem to address a different issue, some of which are dealt with in the next section. The first part of the next section deals with assumptions about macroeconomic growth in some detail – so the first sentence could be moved there. It is unclear what the second sentence refers to – is it that a constant rate of growth is assumed in all sectors? This may be addressed in the third paragraph of the next page.]

Section 4.3 Consistency: economic activity and incomes (Ginny McConnell)
"… The Agency needs to make its "central case" economic assumptions perfectly clear, although (Hattis) the Council notes that there will continue to be considerable uncertainty about the nature of the relationship between economic activity and emission rates." [This last phrase is tacked on here – I think it needs to be developed. I think it is really a separate point, unless we are qualifying the point that the underlying economic assumptions need to be clear and consistent – that maybe this is not so important because the link between economic activity and emission rates is so uncertain.]

Next pgph: (Ginny McConnell) [The argument here is not entirely clear to me. It seems to be referring to a particular set of models or industries, and I think could be more clear if an example of which models or industries these are.] "There is a need for sensitivity analysis over the likely variance in the overall baseline level of macroeconomic growth, but this is distinct from the issue of growth in individual sectors of the economy." … "Rather than starting with the predictions of these models, it is important to step back and evaluate each model's assumptions and the sensitivity of its predictions to these assumptions. [For example……]

Section 4.4: Artificiality of Scenarios (Ginny McConnell)
What makes the forecasts more "real" – is the point that including the general equilibrium effects results in a more credible forecast?

(Ginny McConnell) Bullet: "**The scenarios are not "real," but they should at least be internally consistent."** (I think the point here is something more like: **Each forecast should reflect the general equilibrium effects from emissions controls that change the mix of economic activity over time. Scenario development should reflect the**

major uncertainties in the response of economic activity (including technical change) to control costs.)

Section 4.6: The moving target problem (Ginny McConnell)
After bullet: (I think one of the important scenarios is the additional controls scenario (beyond current CAAA assumptions). This could a replacement for the alternative pathways scenarios suggested in the current Plan. It is also listed as a scenario in the current Plan, but there are no details provided about what will be considered and how it will be done (Chapter 2). This seems important because it will stimulate discussion about what the alternatives are for different source categories, and may suggest directions for future policy.)

5 ALTERNATIVE PATHWAYS

Section 5.3 Third full paragraph (Warner North)
"At a minimum, compound scenarios will be more difficult to describe and so there is a greater chance that they will lead to misunderstandings by users of the report. The benefits and costs of the alternative pathways may be sensitive to the details of how restrictions are relaxed on the other sectors, which would also be difficult to adequately report. Hence it may be preferable for the Agency to drop the alternative pathway scenarios." [I recommend dropping or rewriting the three-sentence paragraph above. I think the alternative pathway analysis should emphasize sensitivity cases with a high degree of disaggregation, as we have stressed in Section 3.2,, to explore a selected possible future PM regulatory strategies aimed at coal-burning power plants, diesel engines, or other specific types of PM sources. These strategies could be motivated by emerging knowledge on health impacts of PM composition and particle size, suggesting that control of some types of sources may provide more health benefits than from other PM sources, on a per unit of emission basis. This pathway analysis might be included as an adjunct to uncertainty analysis on the impact of particle size and chemical composition on exposure-response relationships.

I do NOT believe we should recommend that the Agency drop or place a low priority on the alternative pathway scenarios. I think we should rather suggest that this part of the 812 analysis should **avoid becoming overly complex and detailed.** It should rather be a flexible exploration of future regulatory strategies, motivated by how major uncertainties might resolve on both the benefit and cost sides. I agree with points 12 & 3 aove and the first paragraph that follows. And I agree that the Agency seems confused about what it plans to do here. I hope we can help to clarify rather than adding to the confusion.]

Section 5.3 p. 25 line 32-36 (Warner North)
"It may be reasonable to simplify the "alternative pathways" effort by focusing on marginal cost per change in emissions, but it will also be important that the comparison be undertaken with respect to the same pollutant. Shares of emissions by sector differ significantly for many pollutants, so the question of alternative pathways has only limited

practical application." [Again, this seems overly negative. Let's encourage exploration of how costs are related to emission levels, recognizing that there may be considerable uncertainty in future marginal cost per change in emission, especially where new control technologies are being assumed.]

Section 5.3 p. 25 line 38-41 (Warner North)
"What would be more useful is an estimate of marginal costs in different sectors for the same emission reduction beyond current emissions or beyond expected with-CAAA emissions. This could be incorporated into the proposed plans for looking at selected increased control scenarios in excess of those required by the CAAA." [EPA needs technology-specific engineering estimates (with ranges of uncertainty, for sensitivity analysis) rather than use of econometric estimates based on past data. (See later comments.) I reiterate my concern above that the exercise should be a flexible exploration of scenarios, not an effort to do detailed and comprehensive analysis of all economic sectors.]

Section 5.3 bullet point: (Warner North)

- **If possible, it may be preferable to drop the "alternative pathway" analyses altogether and to focus instead on exploring the separate marginal effects of shifting abatement responsibility between sectors, one at a time.** [OBJECT! REFOCUS, do not DROP.]

Section 5.4: (Laurie Chestnut)
NOTE: THIS SECTION SEEMS REDUNDANT WITH SECTION 5.3 [What is the goal in studying alternative pathways?]. PERHAPS THESE CAN BE CONSOLIDATED AFTER THE COUNCIL DISCUSSES THIS ISSUE FURTHER

Section 5.4 Benefits NOT constant – spatial heterogeneity (Warner North)
First paragraph: "There is also potential for confusing the issue in the alternative pathways when changes in the characteristics of different sectors come into play. The Analytical Plan acknowledges that it would be preferable to hold air quality, and thus benefits, constant while shifting the burden of emissions reductions across sectors. But this is not really possible, so the Agency will instead to try to hold emissions constant, as far as can be accomplished with the lumpiness of emissions control measures on different sectors." [Again, I have problems with this language!! I think the Agency needs to figure out how to increase benefits and reduce costs within a set of control strategies that are feasible technically, and maybe economically and politically. Let's not talk about How to "hold air quality constant while shifting the burden across sectors. If EPA finds out some sector, e.g., electric utilities (i.e., coal-burning power plants) or transportation (diesel engines, or gasoline engines, etc.) or some other sector, is responsible for a large portion of the health effects and that controls can be implemented with costs much less than health benefits, then EPA ought to regulate that sector more stringently – and conversely!! I think a lot of my problem is that we are using somewhat oblique language. We need to tell EPA to shift its focus, not ignore sector and source characteristics information that may be very important for planning effective regulatory strategies.]

Second paragraph: (Warner North)
"From a broader perspective, the most policy-relevant question concerns the appropriate balance between further controls in the electric utility/industrial boilers sector, versus in the transportation sector, to most cost-effectively achieve the new PM and ozone standards." [I like the term, "appropriate balance." But I question whether we should be concluding that we have identified "the most policy relevant question." Please revise this language. I would not want this sentence taken out of context as a Council conclusion.]

Section 5.4 bullet point: (Warner North)

- **It is not possible to hold benefits constant across alternative pathways so that costs can be simply compared. There are likely to be substantial regional differences in health and non-health benefits, even if aggregate emissions are held constant. The "alternative pathways" approach may have too many limitations to warrant the effort expended on it**. [I agree heartily that there is a problem trying to hold benefits or emissions constant across sectors to compare costs. Again, I think what I want to see is more sensitivity and uncertainty analysis and less emphasis on a sector-by-sector detailed economic analysis attempting to do tradeoffs between pollutants or sectors. I believe that our 5.4 discussion ought to be simplified to emphasize a few key concerns, and we should reiterate or link our Section 5.4 discussion to the points made in our Section 3, Project Goals and Analytical Sequence]

Section 5.6 Effects on economy, EGUs (Warner North)
Just before bullet point: . [I am concerned that trying to bring in general equilibrium feedback effects is too complex. I do not want EPA to feel they need to do this as part of alternative pathways analysis.]

6 COST ESTIMATES

Section 6.1 Charge question 7:
p.29, lines 2-10 (Kerry Smith) I believe we need to be more explicit, suggesting that there needs to be a specific description of the levels of economic activity since 1999 to 2002 in comparison to what is projected by region and sector. This requirement goes beyond an uncertainty analysis. We know what happened in 2000. We know what happened up to 2002 (at least). As a result, we can project the required level of economic growth for 2010 if we are to realize what underlies the emission rates in the current plan. This is not simply uncertainty analysis. It is recognizing that current economic conditions must condition how we did with hypothesized levels and mixes of economic activity.

Section 6.2 Econometric models and costs
(Notes) pages 29-30, section 6.2. (Laurie Chestnut) Can we get to greater clarity in terms of what the Council's recommendations are regarding the use of econometric models? Is there evidence that engineering costs are biased? How can available econometric models be used to improve the assessment of costs?

Section 6.2 Econometric models and costs
(Ginny McConnell) Change first paragraph wording to: Econometric models allow the researcher, in principle, to get at indirect effects and behavioral responses to changes in regulations. These models can be used to 1) suggest the magnitude of additional costs beyond direct pollution abatement expenditures, and 2) provide parameters and functions for use in CGE models.

Section 6.2 Bullet point: (Warner North)

- **Econometric models for abatement costs are limited by their incomplete coverage but they can offer insights not available from engineering estimates of compliance costs, in particular, with respect to the impacts of abatement activity on total factor productivity. Econometric models are one important source of the stylized facts about economic relationships that are used to calibrate CGE models.**

[I am concerned that in areas where new control technology is needed or costs are highly uncertain, econometric techniques are not a good substitute for uncertainty analysis.]

Section 6.4 Validation against realized historical costs
(Notes) page 31, section 6.4. (Laurie Chestnut) CAAA regulations are in many cases designed to encourage innovations and technological advancement to reduce emissions at lower costs. Market based regulations are explicitly designed so, but other regulations have also done this—for example, automobile emission limits. It is a huge success story for the CAA that we are enjoying reduced emissions at lower costs than originally expected. This is not just a matter of validating previous forecasts, but is also an indication of the effectiveness of the CAA and a potentially important part of the story of the costs and benefits of the CAA.

Section 6.5 Learning;
Subsection: Desirability/Attainability of one number for learning (Laurie Chestnut)
Drop: "However, this modeling need for a single learning factor for cost reduction is reminiscent of the Agency's desire for a single all-purpose estimate of the value of a statistical life for benefits calculations."
(notes) page 33, lines 40-42: (Laurie Chestnut) This sentence reads like a swipe at the VSL estimates—not appropriate here.

Subsection: Desirability/Attainability of one number for learning (Warner North)
"However, this modeling need for a single learning factor for cost reduction is reminiscent of the Agency's desire for a single all-purpose estimate of the value of a statistical life for benefits calculations. The effect of learning on costs is likely to display considerable systematic heterogeneity across pollutants and technologies. There is unlikely to be a single "one-size-fits-all" number that is satisfactory for all contexts."
[Excellent paragraph, which may be lost on page 35 of a long report !! I am very concerned about EPA's inclination to use complex economic/econometric models that include very gross one-size-fits-all assumptions. Industry response to EPA regulation

can introduce complexities and distortions. Electric utilities are a good example. We may want to encourage EPA to use detailed models for key sectors, with the one-size-fits-all assumptions removed and replaced by appropriate detail. Sensitivity analysis should guide where such detail is needed.]

Subsection: Uncertainty analysis. (Warner North)
"As research into learning effects matures, uncertainty analysis needs to be incorporated to insulate the bottom line from any vulnerability to this problem. There will be deviations from the 80% rule for cost savings. These are likely to differ not just across industries or sectors, but across processes (for example, taking NOx out of coal and gas combustion). These cost savings may be an important issue, but capturing them may require that the corrections to all the way to the process level, not just to the industry level." [YES, YES! Another key paragraph that may be lost here in the middle of our long report!!]

Section 6.6 IPM versus HAIKU models for cost estimates (Ginny McConnell)
(This section was redundant in places. I just tried to consolidate.) Delete second and third paragraphs.
Fourth pgph: "The Draft Analytical Plan states that the IPM will be used for utility cost estimates. This model is very good in many ways, but there are a few concerns." Add: One issue is that use of the national-level IPM implies no regional breakdown in costs or in local utility regulations. For example, ….

Section 6.6 IPM versus HAIKU models for cost estimates (Ginny McConnell)
Insert before last full paragraph, and change first line of that pgph:
In addition, the RFF HAIKU model incorporates estimates of consumer and producer surplus (social costs). The relevant question concerns how to account for both industry private costs and social costs.
"The IPM model does appear to take account of utility purchase and sale of emission allowances…."

Section 6.8 Competing risks due to higher energy prices (Warner North)
After bullet point: [I LIKE the first portion of the discussion above, but I'm UNHAPPY our conclusion as stated in the bullet – we are telling EPA NOT to do analysis on an important issue, and I OBJECT! I think the "richer is safer" literature SHOULD be used to explore the impact of higher energy prices from regulation, especially for electricity. Given the poor state of the US health care system, and the recent occurrence of 10,000 – 15,000 deaths during the heat wave in France, it is far from clear to me that EPA's benefit-cost analysis, based on models that do not have details about the impact of energy prices on health, will have already included the mortality impacts of higher energy prices. People, especially the elderly with low incomes, die in winter from lack of heat, and in summer from heat stoke. Many of these deaths are the direct result of not being able to afford heating and cooling. I really doubt if these effects are included in the general equilibrium models EPA plans to use. Let's tell EPA to explore the issue by doing calculations of the potential health impacts of higher energy prices!! Caveats about possible double counting can be included in the write up of such calculations.]

Section 6.9 Miscellaneous; I/M programs (Laurie Chestnut)
Drop: first paragraph "The scenarios as outlined in Chapter 2 of the Analytical Plan…doesn't seem like a very interesting questions to ask."
(notes) page 37, lines 36-40: The implication that there is little benefit from emission reductions if an area is in attainment with the air quality standards is not consistent with the Agency's primary assumptions of no health effect threshold for PM. This statement should not be made unless we are challenging this assumption, which I don't think we should.

(Ginny McConnell) recommends (This section on I/M programs relates to the proposed scenarios, and should go above in the alternate pathways or scenarios discussion about Chapter 2 – instead of here.)

Subsection on Use of ControlNet. (Ginny McConnell)
Consolidate first two paragraphs. [In general, there needs to be more explanation of how ControlNet will be used to develop costs of alternative scenarios. Under certain of the scenarios that will be developed (either the current "alternative pathways" proposed in the Analytical Plan or some revision to those), sectors will require either more or fewer controls depending on the assumptions of the scenario. How are these reallocations of abatement responsibility to be implemented with the ControlNet model? T]here are many options for control.

Drop orphaned section on MACT just above bullet for "miscellaneous." (and corresponding line in bullet point.

7 COMPUTABLE GENERAL EQUILIBRIUM MODELING

Section 7.4 Competing CGE models
Subsection: AMIGA model; validation.
p.43, line 19 (Kerry Smith) I think our conclusion has to be stronger. Use of AMIGA with the zero substitution assumption would be inconsistent with the objective of a CGE analysis. That objective is to reflect inter-sectoral substitution effects of the costs arises from environmental policies. A choice to use AMIGA by the EPA team would reduce the standing of the CGE analysis in relationship to other cost analyses.

Section 7.6 Tension between CGE, econometric models (Warner North)
Bullet point:

- **CGE models and econometric models for costs are not competing methods, but complementary methods. Econometric results are generally more desirable than expert judgment for calibrating the parameters of CGE models. However, where no econometric estimates exist for key parameters, expert judgment is essential.**

[I object to the second sentence, as I think it will lead EPA to choose econometric "results" (crude estimates based on past data) rather than obtain and compare expert judgment about future costs. Remember, our context is an assessment out to 2020, and

much new and improved technology will be used in emissions control. Let's encourage EPA to use BOTH econometrics and expert judgment, as complementary methods.]

Section 7.7 Miscellaneous (Ginny McConnell)
(I am not sure where we want to put this point. Maybe earlier in the document, in the discussion of the importance of economic growth assumptions.) Currently cryptic "Mobile sources. Mix of types of vehicles-sales of vehicles of different types will be key…" Replace with [Forecasts of the sales and mix of vehicles into the future is important, and depends both on economic growth forecasts, and the speed of penetration of new technologies.]

8 DISCOUNTING

Section 8.4 Central assumption and sensitivity analysis
TAC: My question about consensus just before bullet point
p.50, line 38 (Kerry Smith) In the absence of a summary of estimates of the elasticity of the marginal utility of consumption, I cannot agree with 4 percent as a central value for the baseline case. I think we need some background documentation.

Another issue on discounting that is akin to the assumption about aggregate conditions concerns the disparity between how the report is characterizing the private discount rates used by firms and the market rates faced by individuals and actual conditions at the time the analysis is being done. Mortgage rates hover around 6%, passbook saving and CD rates are around 1-2%. Even consumer credit rates have come down.

I feel we need to reflect what has been a fairly long period of exceptionally low rates in the Agency's discussion of private and social rates of discount.

There is also another issue that has not been discussed. In the estimation of private costs of pollution abatement equipment, what private rate is used to compute annual costs to each sector?

This issue is also another potentially important source of inconsistency between the cost analysis and the CGE model if it is not carefully checked.

Section 8.4 Central assumption and sensitivity analysis
TAC: My question about consensus just before bullet point
p.50, line 38 (Warner North) There has never been consensus among economists on how to pick the social rate of time preference! This is not a new, important issue for the 812 exercise, but an old and well-known problem in all public sector cost-benefit analysis. Let's try to get consensus among us NOT to get fixated on ONE number, or even a range. Use the standard numbers that others in government are using. OMB is in charge for the Administration in designating these standard numbers. The lack of consensus is not our problem!

- **There is some tension between realistic ambiguity in what constitutes the "best" discounting assumption and how a general audience may interpret the provision of a range of results, as opposed to a point estimate. The most informative depiction of uncertainty about discounting would be a**

distribution of net benefits corresponding to an assumption about the likely distribution for "the" discount rate. But this exercise is likely to be too costly to execute.

I object to an implication that EPA should use a probability distribution for discount rate. We should tell EPA to use a range and do a sensitivity analysis using this range. Use OMB's guidance and terminology, and avoid calling 4% a mean! EPA might want to use a wider range for the sensitivity analysis than OMB's range.

I think we ought to avoid the kind of language in this bullet – "realistic ambiguity" "informative depiction" . This text needs further work!

Attachment F

DeMocker October 23, 2003 Notes on Council Interim Advisory: Chapter 10

1. The 812 blueprint reflects EPA's intention to take some modest incremental steps to conduct more data consistency and plausibility checks in select parts of the analysis where they might be most valuable.

2. The blueprint also reflects EPA's intention to move toward a more systematic process for identifying and distributing data products of the 812 study which would be useful to others conducting research or derivative analyses.

3. EPA is concerned the juxtaposition of these plans within one catchall data chapter seems to have led the Council to misinterpret or over-interpret our plans.

4. The two particular elements of draft Council advice which have the greatest potential effect on project management and project scheduling relate to

   a. Data validation

   b. Public and stakeholder involvement in study implementation

5. On page 2, the Council suggests that our proposed publication of intermediate data is intended to be an essential part of a data validation process. On lines 36-37, the draft advisory acknowledges this is not an explicit part of the 812 blueprint but must be implicit.

6. To modelers, the term "data validation" means a very formal and systematic process of model performance checks using a wide array of data sets. While this is essential for development of modeling tools, it is not at all clear that we can or should or even need to conduct additional formal model or data validation of existing tools and data planned for application in the 812 study.

7. For example, the emissions data being developed and consolidated in the 1999 National Emissions Inventory –and which we intend to use in 812– have already gone through extensive data checks and vetting with state agencies. Adding a requirement for the 812 project team to conduct or commission additional data validation of the 1999 NEI will add many months to the critical path of the 812 analysis. Clearly, however, EPA recognizes our responsibility to document pre-existing validation of data or models we use in the 812 study.

8. On page 3 lines 9-11 the Council also suggests the idea of significant stakeholder participation in conducting the 812 analysis itself, an idea also characterized on page 7, line 42 as a potentially useful "public problem-solving process." The blueprint and

charge questions make no reference to adding a public review or participation process to the 812 study.

9. Like the data validation idea, opening up the 812 analytical process itself to public participation may be conceptually worthy, but would nevertheless add months and perhaps years to an already strained project schedule.

10. In the statute, Congress indicated their expectation that EPA would turn around these highly sequential 812 analyses every two years, and they explicitly indicated who they expected EPA to consult with during the design and implementation of the studies. There is no mention of general public or stakeholder involvement in the conduct of the studies themselves, and it is not clear to EPA how we can go beyond the consultation provisions in the statute and still meet the statutory two-year periodicity.

[October 31, 2003 NOTE: Statutory issues which came to light after DeMocker's statement to the Council on Oct 23, 2003 have resulted in an EPA legal position that the two year reporting requirement has been eliminated. The statutory provisions governing the range of consultation, however, remain intact; and these consultation provisions list only the Departments of Labor and Commerce and the external advisory Council.]

11. In response to the Council's request for feedback regarding the clarity of its draft advice, EPA requests that the Council consider providing clarification regarding the relative importance of its various individual elements of advice, including perhaps clarifying where each element of advice falls within three priority categories:

a. Advice defining conditions of study performance which are necessary to meet basic standards of competence

b. Advice defining conditions of study performance which, if met, will allow us to claim the 812 study represents current Best Practice

c. Advice defining conditions of study performance which represent areas of long-term development of methods or tools which will allow us to grow beyond currently attainable Best Practice; including areas where the Agency should be conducting or supporting research or resource development efforts outside of the applied analytical context of 812